Notice of Allowability	Application No.	Applicant(s)
	09/684,712	QUIGLEY ET AL.
	Examiner	Art Unit	
	Alexander Boakye	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *10/05/04*.

2. ☒ The allowed claim(s) is/are *1-24*.

3. ☒ The drawings filed on *06 October 2000* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

        Paper No./Mail Date _____.

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date *2-5,10*

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☐ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____.

REASONS FOR ALLOWANCE

1.   The following is an examiner's statement of reasons for allowance: Claims 1-24

are considered allowable since when reading the claims in light of the specification,

none of the references of record alone or in combination disclose or suggest the

combination of limitations specified in the independent claims.   As to claims 1-9, the

prior art of record does not teach a frequency controllable oscillator having an oscillator

frequency representative of a local frequency; a comparator for generating an error

signal representative of the difference between the local frequency represented by the

oscillator frequency and the system frequency represented by the messages ; and a

controller that adjust the loop filter to have coefficients that define a second bandwidth

that is smaller than the first bandwidth when the error signal drops below a threshold

level.

        As to claims 10-12, the prior art of record does not teach timing offset detector

for generating a timing offset message representative of the transmission time delay

between the cable modem and the CMTS; a summer for adding the time stamp

message and the timing offset message to identify time slots on an upstream channel; a

downstream receiver for processing MAP message that specify time slots assigned to

the cable modem on the upstream channel; an upstream transmitter for transmitting

data in the queue on the upstream channel when the time stamp message and the

timing offset message identify time slots that match the time slots specified by the MAP
messages.

As to claims 13-17, the prior art of record does not teach a time stamp generator
that generates time stamp messages for synchronizing cable modems to each other;
downstream transmitter connected to the downstream processor to send the formatted
data, connected to the time stamp generator to receive time stamp messages, and
connected to the time stamp send generator to insert time stamp messages from the
time stamp generator into the data stream responsive to the time stamp send
commands.

As to claims 18-21, the prior art of record does not teach receiving at the
subscriber station a timing correction message generated at the headend, the timing
correction message representing the transmission time delay between the one
subscriber station and the headend relative to the other subscriber stations; adding the
time stamp message and the timing correction message to define time slots for
upstream transmission from the subscriber stations.

As to claims 22-24, the prior art of record does not teach means for generating at
the headdend for each cable modem a timing correction message, the timing correction
message representing the difference between the actual time of arrival of the timing
offset signal at the headend and the expected time of arrival referenced to the headend
clock; means responsive to the local clock at each cable modem for generating a
continuously incremented local clock timing signal; means at each cable modem for

adding the timing correction message to the local clock timing signal to produce a time slot defining signal corrected for the particular cable modem.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

2.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Boakye whose telephone number is (571) 272-3183. The examiner can normally be reached on M-F from 8:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (571) 272-3179. The fax number is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 305-4750.

Alexander Boakye

Patent Examiner
AB
12/08/04

CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800